

# Program Executive Officer PEO C4I and Space

# Acquiring and Delivering C4I Capabilities for FORCEnet

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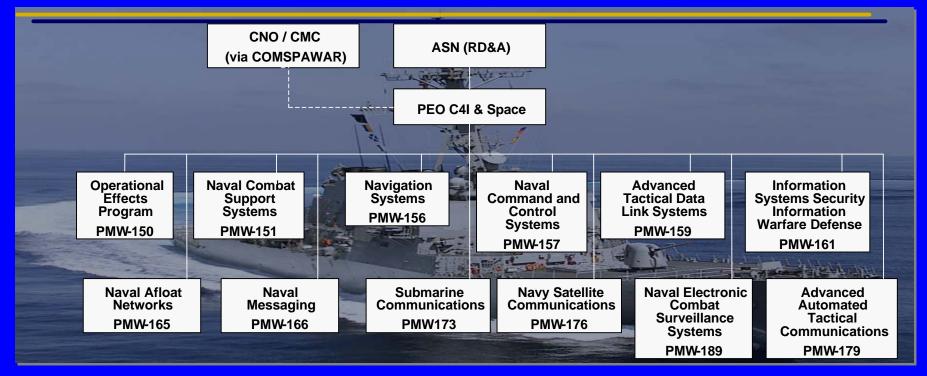


# PEO C4I and Space Overview

- Organizational Profile
- Focus Areas
- Capabilities in Support of FORCEnet
- Questions



## PEO C4I and Space ORGANIZATIONAL PROFILE



Mission: Acquire, Integrate, Deliver and Support Interoperable C4I & Space Capabilities Enabling Seamless Operations for Fleet, Joint and Coalition Warfighters

Vision: Be the Preeminent Provider of Transformational Network Centric Warfare Capability Enabling Decision Superiority

- ➤ Responsible for all aspects of life-cycle management
- > Report to ASN RD&A for acquisition responsibilities of assigned programs;
- ➤ Report to CNO / CMC (through SYSCOM Commander) for in service support
- >Total control of available resources \$2.1B annual budget (approx)



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FY03 Focus Areas

### Stand-up an Enduring PEO Organization

- Increased Focus on Acquisition
- Offload "Legacy" and "Sustainment" programs (post-milestone III/C)
- Reduce non-ACAT efforts

### Acquisition Alignment

- Integration Across PEOs
- Joint product Emphasis
- Align programs to realize FORCEnet

### Program Stability

- Processes Aligned to "Execute to Plan"
- Stabilize execution Year
- Put Planning in the Programming years



# DoN Materiel Establishment Effectiveness and Efficiency Study

The DoN Materiel Establishment study recommended strengthening the requirement / budgeting processes to increase acquisition program stability.

- ➤ Instability affects program planning & progress
- Changes the dynamic of the cost/schedule/technical risk equation
- > Potentially lowers overall effectiveness in meeting mission needs

### Program instability was identified as the most significant impediment to increased efficiencies

- Instability causes PM to enter into multiple excursions during planning and execution
- ➤ Takes "eye off the ball"
- Stresses limited staff resources internally and externally

Program stability is a key enabler that must be in place to realize the full benefits of other improvements in program acquisition



# Program Stability Problem and Solution

#### **❖Problem: Unstable work plan**

- >98% Funding realignment in the execution year (FY02)
  - •TOA: \$305M
    - Realigned Dollars: \$292M
    - Matrix rebaselined 8 times
      - Volatility spanning the entire execution year
- ➢ Installation cost increase unchecked
- **❖Solution:** Re-establish proper authority
  - ➤ Realign execution to match President's Budget
  - ▶ Push planning and requirement generation back into the appropriate PPBE process time frame
  - > Focus attention on achieving installation cost efficiencies
- **❖Goal: Improved stability, efficiency, and capability delivery**

**Build the Plan** 

Fund the Plan

Execute the Plan



# Program Stability Impact of an unstable work plan – SHF Example

### Matrix "Cost of Responsiveness" has resulted in

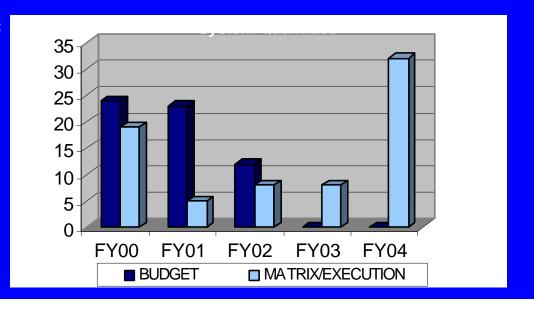
- Inability to take advantage of large terminal procurement quantity price discounts
- Due to FOC moving right, contract expired and a follow-on is required

#### Fleet Loss

- > \$63M re-allocated from SHF to under funded programs FY 00-02
- Twenty-Seven(27) procurements and thirty-seven(37) installations

### Program Impacts

- Unable to execute basic SHF capability fielding to ships specified in the program ORD
- Increased costs
- New Contract costs
- Quantity discount losses





FY04 Focus Areas

- Program Stability
- Cost Performance
  - > Installations
  - Program Office Cost Performance
- Develop Our People
- Improved Metrics aligned to
  - President's Management Agenda
  - ➤ DoD/DoN FY04 priorities
  - > PEO Focus Areas for FY04
- Rationalize Programs/Projects
  - Selected Projects > Programs of Record
  - Program Offloading



### **Cost Performance**

### Evolutionary Acquisition: Tactical Cryptologic Systems

#### Challenge:

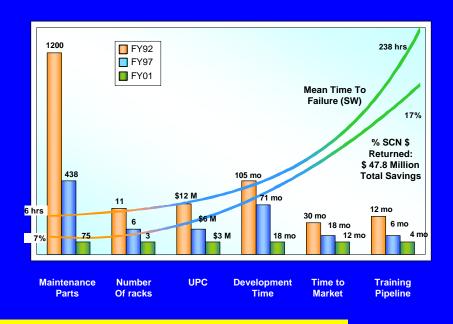
Achieve efficiencies via evolutionary acquisition, organizational streamlining, technology insertion, and divestment of non-core functions

#### **Solution:**

- > 18 month Evolutionary Acquisition cycle
- Converge programs, PM organization, and funding lines
- Use of IT/COTS technology
- > Involve sailors and testers early
- Delegated legacy program execution to Echelon III

#### ❖ ROI:

- > \$47.8 Million SCN saved
- Unit price reduced from \$12 M to \$3 M.
- Mean Time To Failure (Software increased from 6 to 238 hours.



Maximize flexibility to deliver best value solutions



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### **OIF Lessons Learned**

### CONGRESSIONAL TESTIMONY BY SECDEF & GENERAL FRANKS

- **❖C2:** Command and Control of air, ground, naval, & SOF from 7,000 mi. away: "unique experience in warfare"
  - ➤ Permitted unprecedented real time situational awareness & connectivity
- ❖Precision-guided munitions: a force multiplier
  - Low collateral damage was fundamental factor to achieving objectives
- **❖Armed Predator:** demonstrated great potential
  - > will be a high payoff system in the future
- ❖Blue Force Tracking/ enhanced C4I systems: increased lethality and decreased response time
  - >Transformational technologies

"C4I Systems are moving from systems that support combat capable platforms, to essential components of the combat systems themselves"

RADM John Kelly, Commander, Abraham Lincoln Carrier Strike Group



# OIF Lessons Learned What worked especially well

- Chat tools and capabilities (IRChat, MS Chat, Sametime, etc)
  - Observed Ao > 98% (still needs to be higher)
  - Relieved voice networks and a considerable amount of C2 requirements
- Collaboration At Sea networks/websites in SIPR
  - Relieved congested message traffic

### **<b>⇔CENTRIX**

Provided secure C4ISR networks for coalition interoperability



# Making Network Centric Warfare (NCW) a Reality

### **PEO Strategic Objective:**

Transform our systems so that our entire C4I and Space enterprise can be operated as a single warfighting "weapon"

### **Examples of where PEO is engaged to make NCW a Reality:**

- Common approach to software development (RAPIDS)
- Communications Roadmap
- Joint Tactical Radio System (JTRS)
- FORCEnet deliveries TODAY

Delivering FORCEnet Capabilities
Effectively & Efficiently



# Common Approach to S/W Development



### **❖Reusable Application Integration and Development Standards (RAPIDS)**

►It's not an architecture, it's the building codes

#### **<b>⇔**Goals

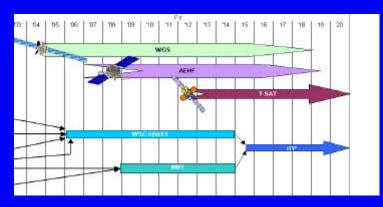
- ➤ Maximize Flexibility "However One Wants"
  - Develop components that can be used/customized by others
  - Leverage tools and initiatives developed independently
- ➤ Maximize Reuse "By Whomever One Wants"
  - •Structure software components so that others can reuse them
  - •Create "parts store" SW components available for mixing and matching to create new capabilities
- ➤ Maximize Portability "Wherever One Wants"
  - Specify and implement standards carefully to promote re-use across multiple architectures

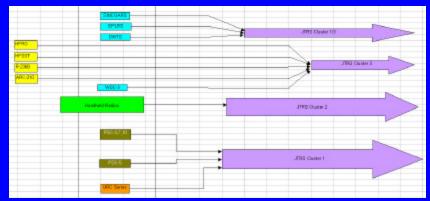


### **DoN Communications Roadmap**

### **❖**75 Plus DoN Radios converging down to <u>under 10</u> radio families

➤ 5 JTRS Clusters, TC SATCOM, LF Sub Comms, Dedicated Communications & Black Programs





- Communications convergence yielding potential cost savings and early migrations to:
  - >TC DoD SCA SATCOM
  - >JTRS Based LOS Wideband Networking



### Joint Tactical Radio System (JTRS)

Current Systems (25-30 Families)

- Navigation
- Positioning
- Location
- Identification
- Idontinoation
- Air to Ground
  - Air to Air
  - Ground toGround
  - SATCOM

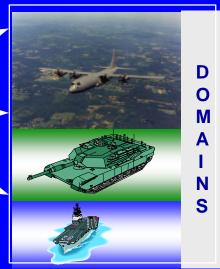
Commercial Waveforms Proprietary Waveforms New Military Waveforms

> Common Technology Base



Common Training and Open Systems HF/VHF/UHF solution 3 Courses in place of 18 2 NECs instead of 14

Joint Solutions (1 Family)



Acquire a Family of Affordable, High-capacity Tactical Radios to Provide Interoperable LOS/BLOS C4I Capabilities to the Warfighters

**Common Family of Radios Across DoD** 



### **FORCEnet:**

### Examples of what we're delivering Today

- **<b>⇔**Coalition
  - **CENTRIXS**
- **♦ SATCOM/Increased BW**
  - >WSC-8 bandwidth improvement
  - **►INMARSAT 128 kbps Modem**
- **❖Data Links** 
  - >MIDS
  - **➢ Joint Range Extension (JRE)**
- Command and Control
  - **▶**GCCS-M (FORCEview, enhanced WebCOP, COP Synch tools, Websked)
- **❖IM/KM Tools** 
  - ►IRChat, K-Web, CAS



### **Summary**

### ❖PEO C4I and Space is aligned to:

- Streamline our acquisition business practices
- Acquire & support C4I capabilities today
- Develop transformational C4I capabilities to the joint warfighter tomorrow



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